

Mitigation: Summary of Resources

Michigan Department of Environmental Quality

<http://www.michiganlegislature.org/mileg.asp?page=getObject&objName=mcl-451-1994-III-1-1-NLAND-WATERS&highlight=>

Wetland Mitigation: 2:1 ratio for forested, coastal, or riparian wetlands; 5:1 for imperiled or rare wetlands; 10:1 for protection of exceptional, rare, and threatened wetlands.

Environmental Protection Agency

<http://www.epa.gov/OWOW/NPS/ordinance/mo11.htm>

Some flexibility on buffer placement when protection of a resource, avoidance of a structure, or recovery of a lot is desirable.

Montgomery County Planning Commission; Norristown, Pennsylvania.

Mitigation Measures to offset Corridor Disturbances

Disturbances can be mitigated by 1) increasing width of zone 1 & 2 of buffer, 2) adding vegetation layers, 3) converting to a more effective landscape.

Pima County Arizona Floodplain and Erosion Hazard Management Ordinance

<http://www.dot.co.pima.az.us/flood/fpm/art10.htm>

Development that would cause a disturbance of a buffer area must include a mitigation plan with specific criteria. Plans evaluated according to how well they avoid, minimize, rectify, reduce, eliminate or compensate for the impact.

Lake County Illinois; Watershed Development Ordinance

<http://www.co.lake.il.us/smc/wdo/wdodoc.pdf>

Hydraulically equivalent compensatory storage required: 1.2 to 1 ration in riverine regulatory flood zones, 1 to 1 in non-riverine regulatory flood zones.

King County, Washington; Environmentally Sensitive Areas

<http://dnr.metrokc.gov/topics/flooding/FLDtopic.htm>

Flood fringe: loss of storage compensated on a 1:1 ratio, may be located off site.
Wetlands: Class 1 and 2 mitigated on a 2:1 ratio, class 3 on a 1:1 ratio

Association of State Floodplain Managers: Mitigation Success Stories: Mariposa County, Arizona

<http://www.floods.org/mssiiimo.htm>

Mitigation within the flood fringe on a 1.5 to 1 ration. No fill in floodway.

US Army Corps of Engineers

<http://www.usace.army.mil/>

Mitigation at a 1:1 ratio for freshwater wetlands, up to 5:1 for Nebraska Eastern Saline

wetlands

Cook County, Illinois: Cook County Board of Commissioners Floodplain Ordinance

<http://www.cookctyclerk.com/agendas/1999/Dec7/flood/Section7000.htm>

Compensatory storage 1.5:1 with hydraulically equivalent storage replaced within the 100 yr fp, and below the 10 yr elevation when compensating for storage lost below 10 yr elevation.

State of Connecticut Committee Bill No. 6171, LCO No. 3593 An Act Concerning Flood Plain Management and Hazard Mitigation (excerpt)

<http://www.cga.state.ct.us/2003/tob/h/2003HB-06171-R01-HB.htm>

On-site, 1:1, hydraulically equivalent compensatory storage.

Hillsborough County, Florida, Land Development Code, Article III

<http://livepublish.municode.com/5/lpext.dll?f=templates&fn=main-j.htm&vid=12399>

Any compensation storage volumes shall be provided in addition to stormwater detention or retention volumes otherwise required to reduce peak runoff rates from the development.

Kane County, Illinois: Article 4 Protection of Special Management Areas

<http://www.co.kane.il.us/kcstorm/Draft/article04.htm#401>

Riverine fp: 1.5:1 compensatory storage with volume below 10 yr elev. to be compensated below such, volume beyond 1:1 may be below or above 10 yr.

Non-riverine: 1:1 ratio

Buffers: Stabilization of any disturbed buffers required. Some exceptions are allowed in the ordinance.

Village of Schaumburg, Illinois, Code of Ordinances: Land Usage

http://www.ordlink.com/cgi-bin/hilite.pl/codes/schaumbu/_DATA/TITLE15/CHAPTER_150_FLOOD_CONTROL/_167_150_06_OCCUPATION_AND_.html

Hydraulically equivalent compensatory storage at a 1.25:1 ratio, volume displaced below 10yr elev. must be compensated for below such.

City of Newton, Massachusetts, Ordinance, Chapter 22

http://www.ci.newton.ma.us/Legal/Ordinance/chapter_22.htm#art2

Sec. 22-22. Floodplain/watershed protection provisions.

Compensatory storage within the same reach of the waterway, and shall be incrementally equal to the theoretical volume of flood water at each elevation which would be displaced by the proposed project.